

Translation

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PATENT COOPERATION TREATY



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference FNSK0310PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/013081	International filing date (day/month/year) 10 October 2003 (10.10.2003)	Priority date (day/month/year) 28 October 2002 (28.10.2002)
International Patent Classification (IPC) or national classification and IPC C10M 169/00, B62D 5/04, F16H 1/16 // (C10M 169/00, 105:02, 107:02, 115:08, 135:10, 159:06, 159:24) C10N 10:04, 30:06, 40:04, 50:10		
Applicant NSK LTD.		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>9</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 15 March 2004 (15.03.2004)	Date of completion of this report 01 December 2004 (01.12.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/013081

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____, as originally filed/furnished
- pages* _____, 2, 5, 7 received by this Authority on 24 June 2004 (24.06.2004)
- pages* _____, 1, 3, 3/1, 4, 6, 8 received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____, 1-16 received by this Authority on 24 June 2004 (24.06.2004)
- pages* _____ received by this Authority on _____
- ☐ the drawings:
- pages _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.
PCT/JP 03/13081

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-16	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-16	NO
Industrial applicability (IA)	Claims	1-16	YES
	Claims		NO

2. Citations and explanations

Document 1: JP 8-209167 A (NSK Ltd. et al.), 13 August 1996
 Document 2: EP 773280 A2 (Kyodo Yushi Co., Ltd.), 14 May 1997
 Document 3: US 6037314 A (Kyodo Yushi Co., Ltd. et al.), 14 March 2000
 Document 4: JP 60-11591 A (Kyodo Yushi Co., Ltd.), 21 January 1985

The abovementioned documents 1-4 are all cited in the international search report.

A. Claims 1 to 7 and 9 to 15

The inventions that are set forth in claims 1 to 7 and 9 to 15 do not involve an inventive step in the light of documents 1 to 3.

Document 1 discloses a lubricating grease composition for structural lubrication which contains a urea compound as a thickener and a synthetic hydrocarbon oil as a base oil, wherein said composition comprises the metal and the resin that are specified in the present application. In addition, document 1 also discloses an electric power-assisted steering device that employs the aforementioned lubricating grease composition.

Meanwhile, documents 2 to 3 disclose the feature of

adding a calcium sulfonate-based additive to a grease composition in order to increase the lubricity thereof. Therefore, it would be easy for a person skilled in the art to add said additive to the grease composition that is disclosed in document 1.

B. Claims 8 and 16

The inventions that are set forth in claims 8 and 16 do not involve an inventive step in the light of documents 1 to 4.

Document 4 discloses the feature of adding montan wax to a grease composition in order to increase the lubricity thereof. Therefore, it would be easy for a person skilled in the art to further add montan wax to the grease composition that is indicated in section A, above.

In addition, in the written response the applicant asserts that the lubricating grease that is disclosed in document 1 and the lubricating greases that are disclosed in documents 2 to 4 are used to lubricate different objects, and that the effect that results from the addition of a calcium sulfonate-based additive to the invention that is set forth in the present application differs from the effect that results from the addition of the same additive to the inventions that are disclosed in documents 2 to 3, and that therefore, the invention that is set forth in the present application involves an inventive step. However, the lubricating greases that are disclosed in documents 1 to 4 are all used to lubricate members that include at least one metal member, and tests show that the calcium sulfonate-based additive exhibits the same friction reducing effect in the lubricants that are disclosed in documents 2 to 3 as it does in the lubricant that is set forth in the present application; consequently, the assertions in question are not applicable.